Space agencies have bad week as craft go missing

Several space missions ran into problems last week, with Europe, Japan and Russia all suffering losses of varying degrees.

On 8 October, the European Space Agency's CryoSat mission was lost shortly after launch from northern Russia. A missing computer command caused the main engines to burn for too long, sending the probe and two of its launch stages plummeting into the Arctic Ocean. CryoSat was designed to measure the thickness of polar ice to within a few centimetres, giving scientists a three-dimensional view of ice loss at the poles.

Meanwhile, in space near the asteroid Itokawa, Japan's Hayabusa spacecraft (see *Nature* 437, 306; 2005) is hobbling on just one of three reaction wheels that control its position after a second failed on 2 October. Project engineers hope it can still collect a sample of Itokawa next month as planned.

And the Russian–European Inflatable Re-entry and Descent Technology demonstrator, an experimental capsule for returning cargo from orbit, went missing on 7 October after radio controllers lost contact during a suborbital test. As of early this week, Russian search teams had yet to locate it on the ground.

US tightens rules in battle against mad cow disease

The US Food and Drug Administration has proposed restrictions that would ban the brains and spinal cords from older cows in all animal feed. Officials say the measures will serve as better safeguards against bovine spongiform encephalopathy (BSE), also known as mad cow disease. Cattle seem to contract the disease from eating feed that contains infectious proteins, often carried by other cattle.

Critics say the planned changes would not close all the loopholes that could allow BSE

IMAGE UNAVAILABLE FOR COPYRIGHT REASONS

Beefed up: US rules now prevent cow brains and spinal cord from being used in animal feed.

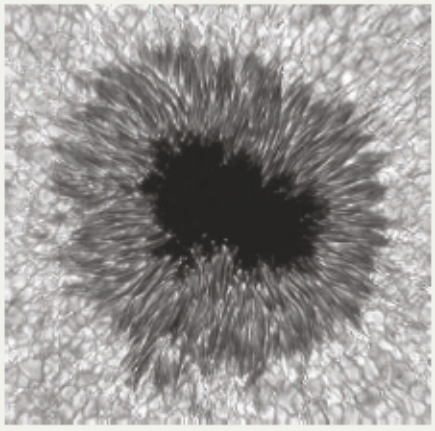
to spread. They say that the brains and spinal cords of cattle less than 30 months old — currently not included in the feed ban — could also harbour the infectious agent, as could cattle blood and poultry waste, which can also still enter the feed system.

A public comment period will end on 19 December, and the rules are expected to take effect next year.

Long-term child health study awaits funding

A survey of 100,000 US children is stirring to life, despite questions over its funding. The National Children's Study — a joint venture between several government agencies — plans to collect information on children from conception to the age of 21. It will look for connections between the environment and health, focusing on key health problems such as obesity, diabetes, asthma and mental health.

Six study centres, selected last month, are preparing to enrol participants. But data collection will begin only if Congress decides to fund the $2.7-billion study — something scientists can never guarantee. "This is the way federal funding goes," says Peter Scheidt, the study's director.



F. WOEGER, KIS/C. BERST & M. KOMSA, NSO/AURA/NSF

Spotlight on sunspot

Sunspot AR 10810 dazzles with detail in this image, taken on 23 September by the National Solar Observatory in Sunspot, New Mexico. The sharp definition is a result of an adaptive-optics system recently installed on the 76-centimetre Dunn Solar Telescope on Sacramento Peak.

Observations of the dark spot, and the penumbral structures that radiate outward from it, can help to clarify the magnetic structure at work in sunspots. The image covers an area about 40,600 kilometres across.

Cotton pest fails to evolve resistance to transgenes

D. T. PHILLIPS/PHOTO

Contrary to some predictions, a study published this week suggests that a cotton pest is not evolving resistance to crops genetically modified to produce the bacterial insecticide known as *Bt*.

Building on earlier work, researchers at the University of Arizona report no evidence of resistance genes becoming more common in pink bollworm, a major cotton pest. This comes after nearly a decade of US farmers planting cotton modified with the *Bt* toxin.

Reporting online in the *Proceedings of the National Academy of Sciences* (doi:10.1073/pnas.0507857102), Bruce Tabashnik and colleagues suggest a reason why. Their mathematical model suggests that current US laws, which require farmers to plant at least 5% of their land with non-transgenic crops, are helping to delay the evolution of resistance.

Cell's decision to retract paper upsets authors

The journal *Cell* is defending its decision to retract a published paper against the authors' wishes.

The paper in question — published in 2004 and written by Antonio Teixeira and his colleagues at the University of Brasilia — provided insights into Chagas' disease, a potentially fatal condition and a major health problem in parts of Latin America. Teixeira's team showed that the parasite that causes the disease acts by integrating its mitochondrial DNA into sufferers' genomes.

On 23 September, *Cell* announced that it was retracting the paper after becoming aware of problems with Teixeira's data on the genome site at which integration is said to occur. The decision was not endorsed by Teixeira and his colleagues, prompting several scientists to complain to *Cell* and call for the evidence behind the decision to be made public.

Last week, *Cell* editor Emilie Marcus wrote in an editorial that an outside researcher raised issues with the paper after publication. These were subsequently supported by other experts, she wrote, including one of the paper's original reviewers. Teixeira's group was offered the chance to author a retraction, but declined, she added.

Correction

Our News story on the reconstruction of the 1918 flu virus (*Nature* **437**, 794–795; 2005) incorrectly located the Scientists Working Group on Biological and Chemical Weapons at the Federation of American Scientists. It is now part of the Center for Arms Control and Non-Proliferation, also in Washington DC.